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10/627,699	07/28/2003	Mu-Jung Wang	MR1115-472	3187

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ELLIOTT CITY, MD 21043

EXAMINER

TRAN, NHAN T

ART UNIT	PAPER NUMBER
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2622

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07/03/2007

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	10/627,699	WANG, MU-JUNG	
	Examiner	Art Unit	
	Nhan T. Tran	2622	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1) Responsive to communication(s) filed on 28 July 2003.

2a) This action is **FINAL**. 2b) This action is non-final.

3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4) Claim(s) 1-11 is/are pending in the application.
4a) Of the above claim(s) _____ is/are withdrawn from consideration.
5) Claim(s) _____ is/are allowed.
6) Claim(s) 1-11 is/are rejected.
7) Claim(s) _____ is/are objected to.
8) Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9) The specification is objected to by the Examiner.

10) The drawing(s) filed on 28 July 2003 is/are: a) accepted or b) objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) All b) Some * c) None of:
1. Certified copies of the priority documents have been received.
2. Certified copies of the priority documents have been received in Application No. _____.
3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received

Attachment(s)

1) Notice of References Cited (PTO-892)
2) Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) Information Disclosure Statement(s) (PTO/SB/08)
 Paper No(s)/Mail Date _____
4) Interview Summary (PTO-413)
 Paper No(s)/Mail Date. _____
5) Notice of Informal Patent Application
6) Other: _____

DETAILED ACTION

Specification

1. The title of the invention "Multi-function Portable Disk" is not descriptive. A new title is required that is clearly indicative of the invention to which the claims are directed.

Claim Objections

2. Claim 6 is objected to because of the following informalities: claim 6 recites "the backlight source" which should be corrected to read as -- a backlight source -- Appropriate correction is required.

Claim Rejections - 35 USC § 103

(Note: There are multiple art rejections applied to claims 1 & 6 as set forth below)

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claims 1-5 & 8 are rejected under 35 U.S.C. 103(a) as being unpatentable over Wu (US 2003/0090588) in view of Suzuki et al. (US 6,788,894).

Regarding claim 1, Wu discloses a multi-function portable disk (Figs. 3-7 and [0015] and [0027], wherein the portable capsule form digital camera represents a multi-

function portable disk since it is capable of capturing a digital image, storing the digital image into a memory, playing back the digital image on its display and transferring the digital image into a computer via USB connector), comprising:

- a housing (Figs. 5-7);
- a control unit (a processor) which is fixed in said housing including a printed circuit board (mother board 110) on which there are a main memory element, electric components and a connector (see Fig. 4 and [0026]-[0027]);
- an image pick-up module (Fig. 3) that includes a lens system (350) and a viewfinder (310) connecting with said printed circuit board (see [0026]); and a display unit (display frame 500 shown in Fig. 5) that includes a display screen (LCD 600; see [0028]).

Although Wu discloses a display unit includes a display screen (600) that is mounted in a display window (510, 452) of the housing as shown in Fig. 5, Wu is just silent about a defensive glass included in the display unit and being mounted in said housing.

However, it is well known in the art that a defensive glass is mounted in front of the display screen for protecting the display from damage as taught by Suzuki, col. 5, lines 16-20.

Therefore, it would have been obvious to one of ordinary skill in the art to provide the display unit in Wu with a defensive glass mounted in the camera's housing for protecting the display screen from damage as taught by Suzuki.

Regarding claim 2, Wu also discloses in Fig. 7 that the housing includes: an upper cover (460) having an engagement edge; a lower cover (450) having an engagement edge; and wherein a noose (a circular edge of case 470 acts as a noose) engaging the engagement edges of the upper cover and the lower cover to make said covers be fastened.

Regarding claim 3, also seen in Fig. 7 of Wu is a sheath (470) which is hallow engaging with one side of the upper cover and the lower cover; and a cover detachable engaging with the sheath (it should be noted that the sheath 470 and the whole portable disk is encompassed to be placed into a case, a valet or pocket, etc. which acts as a cover detachable engaging the sheath by inherency).

Regarding claim 4, see the analysis of claim 1.

Regarding claim 5, Wu clearly discloses that the display screen is an LCD screen (liquid crystal display). See [0028].

Regarding claim 8, Wu also discloses a rechargeable battery (lithium battery 400) which is recharged by using USB power line (see [0027]).

4. Claims 7, 10-11 are rejected under 35 U.S.C. 103(a) as being unpatentable over Wu (US 2003/0090588) and Suzuki et al. (US 6,788,894) and in further view of Kurase (US 2002/0063783).

Regarding claims 10 & 11, the combination of Wu and Suzuki teaches the multi-function portable disk as analyzed in claim 1 but fails to teach that the portable disk further comprises a multi-media play software installed in the control unit and an earphone configured to the multi-function portable disk, wherein the multi-media play software is MP3 play software.

As taught by Kurase, a multi-function portable camera (Fig. 1) is loaded with MP3 software for playing MP3 music through a speaker (98) or an earphone (35) in addition to the capabilities of capturing and playing back images (see [0005] and [0060]). It would enhance the multi-function portable digital camera with such integrated MP3 player for user convenience for playing multi-media contents in a single device.

Therefore, it would have been obvious to one of ordinary skill in the art to further enhance the multi-function portable digital camera in Wu and Suzuki by incorporating the teaching of Kurase to arrive at the Applicant's claimed invention for playing MP3 music through an earphone so as to benefit the user with a single device for both playing images and music in a convenience fashion.

Regarding claim 7, although Wu and Suzuki do not explicitly teach a buzzer connected with the printed circuit board, such a buzzer (a speaker 98) is taught by

Kurase for playing audio when needed (Kurase, [0039]). Therefore, it would have been obvious to one of ordinary skill in the art to implement a buzzer connected to the printed circuit board so that the user would be notified by audio in conventional manner such as the portable disk is powered down or low battery, etc.

5. Claim 9 is rejected under 35 U.S.C. 103(a) as being unpatentable over Wu (US 2003/0090588) and Suzuki et al. (US 6,788,894) and in further view of Hsu (US 2004/0130657).

Regarding claim 9, the combined teaching of Wu and Suzuki as in claim 1 does not disclose a brace on which the multi-function portable disk is mounted. However, it is well recognized by Hsu in the art that a portable camera (10) can be mounted on a brace (34 shown in Figs. 1 & 2) so that the camera can be attached to a fixture for multi-purpose use as necessary (see Hsu, abstract and [0024]).

Therefore, it would have been obvious to one of ordinary skill in the art to provide a brace on which the multi-function portable disk would be mounted for multi-purpose use as necessary as suggested by Hsu above.

6. Claim 6 is rejected under 35 U.S.C. 103(a) as being unpatentable over Wu (US 2003/0090588) and Suzuki et al. (US 6,788,894) and in further view of Hamamura et al. (US 6,567,120).

Regarding claim 6, Wu in view of Suzuki as in claim 1 does not disclose a first button being set in a long lateral of the housing to start/stop the image pick-up module; and a second button being set in other long lateral of the housing to start power; a third button connected with the printed circuit board to choose working mode; a fourth button connected with the printed circuit board to make the backlight source of the display unit run.

Hamamura teaches a multi-function portable camera (Figs. 1-6) that comprises a first button (shutter release button 10 shown in Fig. 1) being set in a long lateral of the housing to start/stop the image pick-up module (col. 4, lines 26-29); a second button (power button 11 shown in Fig. 2) being set in other long lateral of the housing to start power; a third button (mode button 13 shown in Fig. 1) connected with a printed circuit board (23 in Fig. 4) to choose working mode; a fourth button (LCD button 25 shown in Fig. 4) connected with the printed circuit board to make the backlight source of the display unit run (see Hamamura, col. 4, lines 26-46 and col. 5, lines 25-37, and it is noted that the LCD button 25 is used to turn on and off the LCD 6 which also turns on and off the backlight of the LCD. Both of mode button 13 and LCD button 25 are inherently connected to the main circuit board for the camera to function as disclosed). Such arrangement of buttons provides comfort when the camera is held in either left or right hand as taught by Hamamura in col. 4, lines 46-47.

Therefore, it would have been obvious to one of ordinary skill in the art to further configure the portable disk in Wu and Suzuki by arranging first to fourth buttons for

operating the portable disk as taught by Hamamura to arrive at the Applicant's claimed invention so as to provide comfort when the camera is held in either left or right hand.

7. Claims 1 & 6 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hamamura et al (US 6,567,120) in view of Suzuki et al. (US 6,788,894).

Regarding claim 1, Hamamura discloses a multi-function portable disk (Figs. 1, 2 & 6; col. 1, line 50 – col. 2, line 13, wherein the portable digital camera represents a multi-function portable disk because it is fully capable of capturing images, playing back images as well as recording memo inputs, etc.), comprising:

a housing (camera body shown in Figs. 1-4);

a control unit (CPU 39 shown in Fig. 6) which is fixed in said housing including a printed circuit board (main circuit board 23 shown in Fig. 4; col. 5, lines 25-27) on which there are a main memory element, electric components and a connector (Figs. 4 & 6; col. 5, line 63 – col. 6, line 52);

an image pick-up module (combined lens 3 and CCD 20 shown in Figs. 4 & 6) that includes a lens system and a viewfinder (2) connecting with said printed circuit board (Fig. 4 and col. 3, lines 31-35);

a display unit (LCD 6) that includes a display screen (Fig. 2 and col. 4, lines 1-3).

Hamamura is silent about that the display unit includes a defensive glass being mounted in said housing.

However, it is well known in the art that a defensive glass is mounted in front of the display screen for protecting the display from damage as taught by Suzuki, col. 5, lines 16-20.

Therefore, it would have been obvious to one of ordinary skill in the art to provide the display unit in Hamamura with a defensive glass mounted in the camera's housing for protecting the display screen from damage as taught by Suzuki.

Regarding claim 6, Hamamura further discloses a first button (shutter release button 10 shown in Fig. 1) being set in a long lateral of the housing to start/stop the image pick-up module (col. 4, lines 26-29);

a second button (power button 11 shown in Fig. 2) being set in other long lateral of the housing to start power; a third button (mode button 13 shown in Fig. 1) connected with the printed circuit board to choose working mode; a fourth button (LCD button 25 shown in Fig. 4) connected with the printed circuit board to make the backlight source of the display unit run (see Hamamura, col. 4, lines 26-46 and col. 5, lines 25-37, and it is noted that the LCD button 25 is used to turn on and off the LCD 6 which also turns on and off the backlight of the LCD. Both of mode button 13 and LCD button 25 are inherently connected to the circuit board for the camera to function as disclosed).

Conclusion

8. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Nhan T. Tran whose telephone number is (571) 272-7371. The examiner can normally be reached on Monday - Friday, 8:00am - 4:30pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David Ometz can be reached on (571) 272-7593. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.



NHAN T. TRAN
Patent Examiner